To our campus community,

This past year was one of great change for us here at Environmental Health and Safety. We have refocused and reorganized to better serve you, our customers. Our new EH&S vision statement summarizes our philosophy and direction:

UC Irvine Environmental Health and Safety provides reliable and innovative services to the campus community. EH&S is accessible and responsive to our customers. We understand and exceed customers’ and community expectations.

We represent a dependable, flexible organization where trust, respect and teamwork are the key elements to achieving our goals. We promote diversity and individual strengths through communication, understanding and creativity.

EH&S and the campus community work together. Our goal is to integrate safety into the culture of our community while supporting academic and research excellence. The result is a safe and healthy environment with appropriate compliance, protection of assets and efficient execution of business processes. Our proactive planning is welcomed and recognized to mitigate the impact of incidents to the campus and community.

This newsletter is one of many ways we are striving to better assist you. On this page, please note the listing of our staff with their contact numbers listed by functional area. It is our hope that an increased understanding of EH&S will facilitate better utilization of our services. We look forward to serving your needs and solving your EH&S related challenges.

Sincerely,
Marc Gomez
EH&S Director
When to Fight or Run
Know when and how to use a fire extinguisher

Fire extinguishers can be helpful if used properly and wisely. But remember that they are no substitute for getting trained fire fighters on the scene as quickly as possible. Also remember these important points:

• Do not attempt to fight a large fire with an extinguisher. Get out of the building immediately and call for help.
• Most extinguishers are emptied in less than a minute. Unless the fire is small and contained, an extinguisher may quickly prove ineffective.
• Always leave yourself a way out. Keep your back to a safe exit. If you can’t put the fire out right away and it starts to spread, evacuate the building immediately.

Keeping these precautions in mind, the most effective way to use an extinguisher is the PASS technique:

Standing 6 to 8 feet from the fire . . .

• Pull the pin.
• Aim the hose at the base of the fire.
• Squeeze the trigger.
• Sweep back and forth with the extinguisher.

For more information on Fire Safety, please visit our Web site under Fire Program or contact our Deputy Fire Marshals Robert Salgado and Scott Jackson at (949) 824-6093 and (949) 824-9665 respectively.

ARE YOU PREPARED TO EVACUATE?

Would you know what to do if an emergency situation like a fire, explosion, or natural disaster hit your workplace? One of the most important things you’ll need to know in any emergency is how to evacuate safely.

• Know your assigned evacuation route. Check the escape plans posted around the facility which direct you to the nearest exits.
• Know alternate escape routes in case you are not able to reach or use your assigned exit.
• Pay attention during evacuation drills. Know how to exit safely even if there’s blinding smoke or no lights.

To obtain a hard copy of UCI EMERGENCY PROCEDURES (a.k.a. Emergency Flipchart), please contact our office at 824-6200 or 824-5073. The "Emergency Flipchart" is also available via our website at http://www.ehs.uci.edu/eprepman/flipcht.html

Cellular Phone Use At Gas Stations

The safety aspects of using a cellular phone while at a gas station have been debated in the media in recent months. The general consensus among people knowledgeable about this issue is that there is a very small risk related to using a cellular phone at a gas station. However, the gasoline vapor concentration in the air needs to be so high near the phone to create an explosion risk that it is unlikely anyone would want to make a call since the gas odor would be overwhelming.

Cellular phones pose a threat at gas stations due to the sparks that can be generated by the high-powered batteries inside the phones. Normal pumping of gas, especially if there is any breeze, will not likely produce a hazardous condition that can lead to an explosion even if there is a spark from a phone’s battery. However, if there is a very large gasoline spill and there is little air movement, it is possible that a hazardous condition could exist nearby.

Since there still is a small risk, it is best to not use a cellular phone directly adjacent to gas pumps or in any area in which gasoline vapor can accumulate to a sizable air concentration. Making a cell phone call inside of a car that has its windows rolled up, or in which the smell of gas is either absent or not very strong, should not be a problem. However, your safest bet is not to make phone calls at gas stations so as to completely eliminate this explosion risk.

For more information on this topic, contact Rick Mannix of EH&S at (949)824-6098, or via email at rcmannix@uci.edu.
**Knowledge Corner**

**WHAT ARE THE SYMPTOMS OF MSDs?**

Workers suffering from Muscular Skeletal Disorder (MSDs) may experience less strength for gripping and less range of motion. In extreme cases, a person may experience loss of muscle function and inability to do everyday tasks.

Here are some common symptoms you should watch out for:

- Painful joints
- Tingling or numbness in hands or feet
- Shooting or stabbing pains in arms or legs
- Swelling, inflammation, burning sensation
- Pain in wrists, shoulders, forearms, knees
- Fingers or toes turning white
- Back or neck pain, stiffness

**WHAT ARE THE CAUSES OF MSDs?**

Workplace MSDs are caused by exposure to the following risk factors:

- **Repetition.** Doing the same motions over and over again places stress on the muscles and tendons.
- **Forceful exertions.** Forced physical effort required to perform a task or to control equipment or tools.
- **Awkward postures.** Awkward postures include repeated or prolonged reaching, twisting, bending, kneeling, squatting, working overhead with hands or arms, or holding fixed positions.
- **Contact stress.** Pressing the body against a hard or sharp edge can result in placing too much pressure on nerves, tendons, and blood vessels. For example, using the palm of your hand as a hammer can increase your risk of an MSD.
- **Vibration.** Operating vibrating tools such as sanders, grinders, chippers, drills, and saws can lead to nerve damage.

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**Good or Bad Ergonomics?**

**Use good ergonomics to avoid injury**

Ergonomics is the science of fitting work to people, rather than people to work. Good ergonomics protects you from painful and often long-term injuries. What’s the difference between poor ergonomics and good ergonomics?

**Poor ergonomics = a task or a tool that exposes you to frequent:**

- repetitive motions on a machine, a keyboard, while packing, while cutting, etc.
- forceful exertion of your arm or hand.
- vibration, awkward positions, or movements.

**Good ergonomics = a task or a tool that:**

- minimizes repetitive motions.
- alternates repetitive motions with other tasks.
- positions the work waist high.
- places tools and materials within 20 inches.
- uses a chair with adjustable height and back support.
- positions a computer keyboard for work with wrists straight, elbows at right angles, and arms resting at the sides. Avoids bending the wrists.
- uses light, easy-grip tools that don’t require extreme effort.
- grips tools so that the thumb and index finger overlap slightly.
- holds materials with clamps or jigs.
- carries materials with a palm-down grip.

Additional ergonomic information is available from EH&S. You may request ergonomic evaluations of your work area by calling 4-9940 or via email at dkmori@uci.edu.

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**Rate Your Safety Sense**

**Measure your accident prevention power**

How would you prevent an accident in these situations?

1. You see water on the floor in a poorly lit area of the stockroom. Do you:
   (A) clean up the spill immediately?
   (B) make a mental note to clean up the spill later?

2. You see a new employee run down the aisle and around the corner. Do you:
   (A) explain that rules against running are designed to prevent slips, trips, and falls?
   (B) mind your own business since you’re not his boss?

3. You see a machine with no guard over its moving parts. Do you:
   (A) immediately report the missing guard and make sure no one uses the machine until the guard is back in place?
   (B) use the machine without the guard, since your job will only take a minute?

4. You come across a container without a label in a hazardous materials storage area. Do you:
   (A) report the missing label to your supervisor immediately?
   (B) open the container to see what’s inside?

Your safety sense should tell you that the answer is always A. Simple acts can prevent big accidents!
Material Safety Data Sheets (MSDS)

When you use chemicals on the job, you have the right to know about their hazards and how to work with them safely. This right is the heart of the Cal/OSHA Hazard Communication Standard.

One way the standard supports your “Right To Know” is through the use of Material Safety Data Sheets or MSDS's. The MSDS is your guide to hazardous materials safety. It is where you can find all types of information on a hazardous substance. An MSDS can provide information about the hazardous material’s physical and chemical hazards, toxicity, health effects, emergency procedures, reactivity, storage, handling, disposal and protective equipment. If you have any questions or concerns when using chemicals for any process or task, always check the MSDS.

The Haz Com Standard requires that hazardous materials manufacturers and distributors provide users with Material Safety Data Sheets (MSDS). Many departments have binders of Data Sheets in their individual areas. The primary resource for MSDS’s on campus is the internet based UC Systemwide MSDS Management System. A joint project of the University Environmental Health & Safety Offices, the site contains over 800,000 data sheets. The MSDS system can be accessed from any university workstation and can be searched by common name, manufacturer, CAS number or MSDS text. Data sheets can be printed using your web browser's print function.

The site is located at: http://www.ucmsds.com/. All staff with internet access are encouraged to check this site when they need an MSDS. Access to the site is also available through a link from the Environmental Health & Safety web page. For any questions regarding this information, please contact our Biosafety/Industrial Hygiene Manager, John Chan at (949) 824-7101, or via email at jwchan@uci.edu.

A LITTLE BIT OF THIS, AND A LITTLE BIT OF THAT

Each day the average person consumes between 1500 and 2400 calories, depending on height, body frame, and activity level. You may need more calories if your work is extremely strenuous or you work out a lot.

But whatever your daily calorie intake, here’s how those calories should be divided:

- **50% to 60% carbohydrates**
  (pasta, rice, grains, fruits, vegetables)

- **15% protein**
  (meat, poultry, fish, dairy, beans)

- **30% or less fat**
  (dairy, meat, oil)

DO YOU HAVE ANY COMMENTS, QUESTIONS, OR REQUESTS FOR OUR NEXT ISSUE?

Don’t hesitate to voice your opinions and interests to “EH&S Safety Matters” at cblu@uci.edu.

Special thanks to the EH&S Newsletter Committee and everyone who contributed to “EH&S Safety Matters”!

Battery Dead?

The right way to jump-start your vehicle

Dealing with a dead battery may be a nuisance, but it doesn’t have to be dangerous or damaging to your vehicle. Here’s a quick step-by-step review of how to jump a battery safely and effectively:

**Before you attach the cables:**
- Make sure the vehicles do not touch.
- Turn the ignition off.
- Set the parking brake and put the transmission in neutral or park.
- Add water to the battery if needed. Replace caps.
- DO NOT jump start if the fluid in the battery is frozen.
- DO NOT jump start unless both batteries are the same voltage and negative ground.

**Attach the cables as follows:**
- Clamp one jumper cable to the positive pole (+) of the dead battery. Then clamp the cable’s other end to the positive pole of the charged battery.
- Clamp the second cable to the negative pole (-) of the charged battery and clamp the second cable’s other end to the dead vehicle’s engine block on the side away from the battery.
- Start the vehicle with the charged battery. Then start the disabled vehicle.
- DO NOT stand over the batteries while jump-starting is in progress.

**Removing cables:**
- Remove the cable from the engine block and the other vehicle’s negative pole.
  Then remove the other cable connecting the positive poles.

Clip this article and place it in your glove compartment for future reference.